

Appl. No. 09/944,511
Reply to Office action of 08/29/2003

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REMARKS/ARGUMENTS

In reply to the Office Action mailed August 29, 2003, Applicant respectfully requests reconsideration of the subject application. In the Office Action, the Examiner rejected all of claims 1-20 under 35 U.S.C. §103(a) for obviousness over U.S. Patent 3,915,840 (the "Gladrow patent") in view of U.S. Patent 5,328,595 (the "Rainis patent"). In reply, Applicant has amended claim 1 to incorporate the limitations of claim 2 and canceled claim 2. Applicant has also amended claims 3 and 4 to indicate that they are now dependent from claim 1. Accordingly, claims 1 and 3-20 remain pending in the subject application.

Applicant would like to express his gratitude to Examiners Arnold and Griffin for taking the time to discuss the subject application with Applicant's undersigned representative in a telephonic interview on September 23, 2003. Applicant will endeavor to present herein what was discussed in the interview.

Applicant has amended claim 1 to incorporate the limitations of claim 2 in this amendment. Even though the Examiner has issued a final rejection, Applicant submits that this amendment can be entered because the limitations currently presented in claim 1, as amended, are no more than the limitations previously presented in claim 2. Therefore, Applicant would like the Examiner to reconsider his rejection with respect to claim 2.

Claim 1, as amended, recites that the catalyst particles in a cracking reactor have the same composition as the catalyst particles in the reformulating reactor. The Gladrow patent clearly does not teach the same catalyst composition in both the hydrogen transfer reactor and the cracking reactor. Examples 1 and 2 in column 4 of the Gladrow patent indicate that a "PCC-Type BP activated carbon granules were used as the catalyst in the hydrogen transfer reactor" (column 4, lines 56-58) and that "Davison XZ-36 catalyst [was] used in the cat cracking stage" (column 4, lines 60-61). Hence, the Gladrow patent does not teach the same catalyst composition in the cat cracking reactor and in the hydrogen transfer, reformulating reactor.

The Rainis patent does not suggest to one of ordinary skill in the art use of the same catalyst composition in a cat cracking reactor and in a hydrogen transfer, reformulating reactor. The Rainis patent merely teaches a reforming catalyst composition comprising a large pore zeolite, a Group VIII metal component and a Group IA or Group IIA metal cation. Rainis patent, column 2, lines 14-17. The Rainis patent indicates that reforming catalysts are made substantially free of acidity to reduce the tendency toward excessive cracking, leading to low liquid yields. Rainis patent, column 4, lines 23-25. Hence, the Rainis patent teaches that the reforming catalysts are designed to avoid excessive cracking; whereas, FCC catalysts are designed specifically for cracking.

Applicant respectfully submits that the Rainis patent does not teach the same catalyst composition in a cat cracking reactor and in a hydrogen transfer, reformulating reactor.

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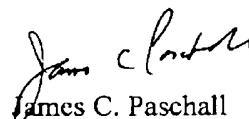
Rainis patent merely teaches a type of catalyst that can be used in the hydrogen transfer reactor. However, there is no teaching or suggestion for using the same catalyst composition in both the cat cracker reactor and the hydrogen transfer reactor of the Gladrow patent. Accordingly, Applicant respectfully submits that claim 1, as amended, is patentable over the cited references. Additionally, Applicant respectfully submits that, for at least the same reasons, claims 3-9 which depend from claim 1 are also patentable over the cited references.

Claim 10 recites contacting the hydrocarbon feed stream with catalyst particles having a composition in a first reactor to produce a cracked product, recovering a naphtha stream from said cracked product stream and contacting the naphtha stream with catalyst particles having the composition in a second reactor to produce an upgraded product stream. As Applicant has pointed out with respect to claim 1, neither the Gladrow patent nor the Rainis patent teaches or suggests use of the same catalyst composition in the first reactor and in a second reactor. Accordingly, Applicant respectfully submits that claim 10 and, at least for the same reasons, claims 11-16 which depend from claim 10 are also patentable over the cited references.

Claim 17 recites contacting the hydrocarbon feed stream with catalyst particles having a composition in a first reactor to produce a cracked product, recovering an oil stream from the cracked product stream, cycling catalyst particles that had resided in the first reactor to a second reactor, and contacting the oil stream with catalyst particles in a second reactor to produce an upgraded product stream. Neither the Gladrow patent nor the Rainis patent discloses cycling catalyst particles between the cat cracked reactor and the hydrogen transfer reactor. Accordingly, Applicant respectfully requests reconsideration and allowance of claim 17 and, at least for the same reasons, reconsideration and allowance of claims 18-20 which depend from claim 17.

Applicant respectfully requests reconsideration and allowance of all the claims 1 and 3-20 remaining pending in the subject application. Should the Examiner have any questions regarding this application, please feel free to call the undersigned.

Respectfully submitted,



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JCP/gm